

ANSWER KEY

Unit 1: Basics of Electricity and Electronics

A. Multiple choice questions

- | | | | | |
|---------|---------|---------|---------|---------|
| 1. (b) | 2. (d) | 3. (c) | 4. (d) | 5. (a) |
| 6. (a) | 7. (c) | 8. (b) | 9. (c) | 10. (a) |
| 11. (b) | 12. (b) | 13. (a) | 14. (c) | 15. (a) |
| 16. (b) | 17. (a) | 18. (a) | 19. (c) | 20. (b) |

B. Fill in the blanks

- | | |
|---|---------------|
| 1. series | 2. parallel |
| 3. work | 4. switch |
| 5. positive | 6. power |
| 7. Georg Simon Ohm | 8. 1000, 3600 |
| 9. opening and Closing | 10. negative |
| 11. voltage, resistance and resistance, voltage, current. | |

C. State whether the following statements are True or False

- | | | | | |
|------|------|------|------|-------|
| 1. F | 2. F | 3. T | 4. F | 5. T |
| 6. F | 7. F | 8. T | 9. T | 10. T |

Unit 2: Electrical and Electronic Components

A. Multiple choice questions

- | | | | | |
|---------|---------|---------|---------|---------|
| 1. (d) | 2. (c) | 3. (a) | 4. (a) | 5. (c) |
| 6. (a) | 7. (b) | 8. (c) | 9. (b) | 10. (c) |
| 11. (a) | 12. (b) | 13. (b) | 14. (a) | 15. (a) |
| 16. (b) | 17. (d) | 18. (b) | 19. (a) | 20. (a) |
| 21. (b) | 22. (d) | 23. (c) | 24. (d) | 25. (d) |
| 26. (c) | 27. (b) | 28. (c) | 29. (b) | 30. (d) |
| 31. (d) | | | | |

B. Fill in the blanks

- | | |
|------------------|----------------|
| 1. AC | 2. impure |
| 3. pure | 4. electric |
| 5. magnetic | 6. two |
| 7. semiconductor | 8. three |
| 9. on | 10. transistor |

C. State whether the following statements are True or False

- | | | | | |
|-------|-------|-------|-------|-------|
| 1. F | 2. T | 3. T | 4. T | 5. F |
| 6. F | 7. T | 8. T | 9. T | 10. T |
| 11. T | 12. F | 13. T | 14. F | 15. F |
| 16. T | 17. F | 18. T | 19. F | 20. F |

E. Identify the symbols in the table given below

- | | |
|----------------------|---------------------------------|
| 1. Resistor | 2. Variable resistor |
| 3. Thermistor | 4. Varistor |
| 5. Photo resistor | 6. Light Emitting Diode |
| 7. PN-junction diode | 8. Bi-polar junction transistor |

NOTES

F. Calculate the value for the following

- | | |
|----------------|--------------------|
| 1. 4 ampere | 2. 0.33 farad |
| 3. 5 ohm | 4. 0.00055 coulomb |
| 5. 176 watt | 6. 4840 watt |
| 7. 10 ampere | 8. 220V |
| 9. 880 coulomb | 10. 20 V |

G. Match the columns

- | | |
|--------|--------|
| 1. (f) | 2. (d) |
| 3. (b) | 4. (a) |
| 5. (c) | 6. (e) |

Unit 3: Components Value Identification

A. Multiple choice questions

- | | | | | |
|--------|--------|--------|--------|---------|
| 1. (d) | 2. (b) | 3. (d) | 4. (c) | 5. (c) |
| 6. (b) | 7. (b) | 8. (a) | 9. (a) | 10. (b) |

Unit 4: Electrical Earthing System

A. Multiple choice questions

- | | | | | |
|---------|---------|--------|--------|---------|
| 1. (a) | 2. (c) | 3. (d) | 4. (d) | 5. (c) |
| 6. (a) | 7. (a) | 8. (b) | 9. (d) | 10. (c) |
| 11. (b) | 12. (b) | | | |

B. Fill in the blanks

- | | |
|---------------------|-----------------------|
| 1. earth resistance | 2. lightning arrestor |
| 3. 5 metre | 4. 1 feet (30 cm) |
| 5. 0.5m | |

C. State whether the following statements are True or False

- | | | | | |
|------|------|------|------|-------|
| 1. T | 2. F | 3. F | 4. F | 5. F |
| 6. F | 7. F | 8. F | 9. T | 10. T |

Unit 5: Cabling

A. Multiple choice questions

- | | | | | |
|--------|--------|--------|--------|---------|
| 1. (c) | 2. (c) | 3. (a) | 4. (a) | 5. (b) |
| 6. (a) | 7. (c) | 8. (b) | 9. (c) | 10. (b) |

B. Fill in the blanks

- | | |
|------------------------------|--------------------------|
| 1. earth | 2. phase or line or live |
| 3. neutral | 4. single core fibre |
| 5. radio frequency | 6. 650 to 1100 volts |
| 7. cross linked polyethylene | 8. 50-100 |
| 9. light | 10. thermoset |

C. State whether the following statements are True or False

- | | | | | |
|------|------|------|------|-------|
| 1. T | 2. T | 3. T | 4. T | 5. T |
| 6. F | 7. F | 8. T | 9. F | 10. T |



Unit 6: Electrical Safety

NOTES

A. Multiple choice questions

- | | | | | |
|--------|--------|--------|--------|---------|
| 1. (a) | 2. (c) | 3. (d) | 4. (c) | 5. (c) |
| 6. (d) | 7. (c) | 8. (b) | 9. (b) | 10. (b) |

B. Fill in the blanks

- | | |
|----------------------------|------------------------------|
| 1. resistance | 2. Miniature Circuit Breaker |
| 3. close | 4. conductor |
| 5. Electrostatic Discharge | 6. hazards |
| 7. dry | 8. stickers |
| 9. respiratory paralysis | 10. appropriate gauge |

C. State whether the following statements are True or False

- | | | | | |
|------|------|------|------|-------|
| 1. T | 2. T | 3. F | 4. T | 5. T |
| 6. T | 7. T | 8. T | 9. T | 10. F |

Unit 7: Tools and Equipment

A. Multiple choice questions

- | | | | | |
|--------|--------|--------|--------|---------|
| 1. (d) | 2. (a) | 3. (b) | 4. (c) | 5. (a) |
| 6. (d) | 7. (b) | 8. (d) | 9. (a) | 10. (c) |

B. Fill in the blanks

- | | |
|-------------------------|--------------------------|
| 1. cutting and gripping | 2. 3, 48 |
| 3. soldering | 4. electronic and manual |
| 5. metal glue | 6. rollable and rigid |
| 7. neon | 8. drill bits |
| 9. current | |

C. State whether the following statements are True or False

- | | | | | |
|------|------|------|------|------|
| 1. F | 2. T | 3. T | 4. F | 5. F |
| 6. T | 7. T | | | |

Unit 8: Electromechanical Assembly

A. Multiple choice questions

- | | | | | |
|--------|--------|--------|--------|---------|
| 1. (b) | 2. (a) | 3. (c) | 4. (b) | 5. (c) |
| 6. (a) | 7. (a) | 8. (b) | 9. (a) | 10. (d) |

B. Fill in the blanks

- | | |
|--------------------------|----------------------------|
| 1. connections | 2. electromechanical |
| 3. shielded twisted pair | 4. bending |
| 5. electrical | 6. electrostatic discharge |
| 7. amperage | 8. Logic |
| 9. faulty wires | 10. label |

C. State whether the following statements are True or False

- | | | | | |
|------|------|------|------|-------|
| 1. F | 2. T | 3. T | 4. F | 5. T |
| 6. T | 7. T | 8. T | 9. T | 10. T |



NOTES

Unit 9: Wire Preparation Methods

A. Multiple choice questions

- | | | | | |
|--------|--------|--------|--------|---------|
| 1. (a) | 2. (b) | 3. (c) | 4. (b) | 5. (b) |
| 6. (d) | 7. (d) | 8. (a) | 9. (a) | 10. (d) |

B. Fill in the blanks

- | | |
|----------------------------|-------------------------|
| 1. stripper | 2. lugs |
| 3. hydraulic crimping tool | 4. aluminium and copper |
| 5. strip | 6. outer sheath |
| 7. notch | 8. crimping |
| 9. grouping | 10. solderless |

C. State whether the following statements are True or False

- | | | | | |
|------|------|------|------|-------|
| 1. T | 2. F | 3. T | 4. T | 5. T |
| 6. F | 7. T | 8. T | 9. T | 10. F |

Unit 10: Hazards with Panel Assembly and Wiring

A. Multiple choice questions

- | | | | | |
|---------|---------|---------|---------|---------|
| 1. (d) | 2. (b) | 3. (a) | 4. (c) | 5. (c) |
| 6. (d) | 7. (d) | 8. (d) | 9. (c) | 10. (d) |
| 11. (c) | 12. (d) | 13. (a) | 14. (b) | 15. (a) |

B. Fill in the blanks

- | | |
|--------------------|----------------------------|
| 1. rubber | 2. strained |
| 3. heart | 4. Sodium bicarbonate |
| 5. Carbollic acid | 6. 10–15 times per minute |
| 7. lungs | 8. grounding |
| 9. electric shocks | 10. earthing |
| 11. off | 12. Fault |
| 13. good | 14. electrical, electronic |
| 15. wet | |

C. State whether the following statements are True or False

- | | | | | |
|------|------|------|------|-------|
| 1. T | 2. T | 3. F | 4. T | 5. F |
| 6. T | 7. T | 8. T | 9. F | 10. F |